

one feels might have been included, such as the different varieties of the spinulose shield fern which often have the appearance of distinct species, the purple cliff brake (*Pellaea atropurpurea*), *Lycopodium annotinum*, *Oakesia puberula*, *Betula papyrifera*, *Ranunculus fascicularis*, *Hepatica acutiloba*, *Dicentra canadensis* and *Viola latiuscula*; also the weedy introductions, *Linaria minor*, *Chenopodium Botrys*, and *Cycloloma atriplicifolium* which are not infrequent in the vicinity of New York.

This little volume should do much to arouse the interest of the general public as well as the botanical student in our native plants and in systematic botany. A highly successful future for it is predicted.

H. K. Svenson

BROOKLYN BOTANIC GARDEN

### Plants of Southern California<sup>2</sup>

In his Manual of Southern California Botany, Dr. Munz has rendered a distinct service to all botanists interested in the plants of the region. The area covered is roughly the southern one-fourth of the state, the northern boundary running through Ventura, Kern and Inyo counties, including all of Death Valley, the other boundaries being those of the state. For this region all of the ferns and flowering plants are described and many are illustrated with line drawings. Keys to families, genera and species are complete. Covering a restricted region, the keys are simpler and shorter and localities are listed in more detail than is possible in a work covering the entire state. Comparing the volume with Jepson's Manual of the Plants of California it is noted that for many of the larger genera less than half as many species are included. Thus 31 species of *Lupinus* are given for Southern California, 65 for the state; for *Trifolium* the numbers are 16 and 41; for *Brodiaea*, 8 and 21; for *Potentilla*, 20 and 44; for *Calochortus*, 16 and 24; and for *Carex*, 41 and 126. As the region covered covers the desert regions of the state all of the species of *Cactaceae*, *Yucca*, *Agave* and most of the succulents are included. In the *Crassulaceae* there is noted a feature in which both of the manuals might have been improved—the use of synonyms. Jepson describes eight species of

<sup>2</sup> Philip A. Munz. A Manual of Southern California Botany. (8) xxxix + 642 pages. Claremont College, 1935. \$5.00.

*Cotyledon*, Munz fourteen of *Echeveria*, but there is nothing in either book, except the similarity of specific names, to indicate that the two genera are the same. Incidentally, and characteristic of the two manuals, Jepson gives common names to several of these species, Munz a common name for the genus only.

The Introductory "Discussion of Distribution of Southern California Plants" of some thirty pages describes very briefly the geological and physiographical features of the region, the life zones and the distinctive floras. Of the last there are described the Mohave Desert, Colorado Desert, Montane, Cismontane and Insular Floras. For each of these there is a list of characteristic plants and of those endemic.

At the end of the book, before the glossary and index, are a number of pages of Nomenclatorial Changes, listing species and varieties the names of which have been changed by the author. In this section nine varieties and two species are described for the first time as new, with their Latin diagnoses. Another unusual feature is a list, with brief biographical notes, of people for whom species have been named. Another list is of specific names with their derivations.

The book is attractive in appearance, the descriptions are clear and complete and the keys easy to follow.

GEORGE T. HASTINGS